Rapid Fielding
A Path for Emerging Concept and Capability Prototyping

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Purpose

Introduce a shift in ASD R&E/ Rapid Fielding (RF) Operating Model

Current Model (2009-2013)

- Nearly 85% of the funds received were allocated to COCOM-stated, near-term gaps
  - -- Focus on 1-2 year projects – development/modification and transition
  - -- Strong collaboration with the Services from the outset
- Resulted in:
  - -- 167 successful capability demonstrations with an 85% transition to the field, PoR or GSA schedule
    - --- Lower risk, more mature and focused concepts
    - --- More operationally-suitable prototypes

Future Model (2014-Beyond)

- Maintain roughly 55% of the funds received for the current model
- Remaining 45% go to prototypes aligned against DoD/Chairman's Gap-level interest areas
  - -- More strategic in nature; increased emphasis on anticipating capability needs/opportunities
    - --- Demonstrate a major capability change, or fill a design/industrial gap
    - --- Explore technical capability options and methods of development

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What's Really Changing?

An increased commitment to use concept & development prototyping to:

- **Expand the realm of the possible with or without driving a follow-on procurement activity**

  Soldier-Warfighter Operationally Responsive Deployer for Space (SWORDS) (JCTD) – low cost (<$2M) rapidly deployable Micro Satellite Launch Vehicle →

- **Provide a hedge against technical uncertainty or unanticipated threats ***

  NAUTICUS (ECTD) – a compact underwater short-range active interrogation system that can non-invasively determine the presence of high explosives (HE) and special nuclear materials (SNM) inside a small boat or submerged object of interest

- **Cost-effectively enhance interoperability and reduce lifecycle costs*** →

  70mm Rocket Penetrator Guidance System (FCT) – a laser-designated, lock-on-before-launch rocket using JDAM semi-active laser seeker and M282 enhanced electronic delay warhead. Provides low cost, guided rocket with 1 meter CEP accuracy, selectable delays, and enhanced range from 1.5Km to 8Km.

- **Respond to other areas as defined by Mission Area Analysis** →

* Prototyping and Operational Innovation Potential DMAG - 25 Jul 12

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Prototype Spectrum

TRL 1 - 3	TRL 4	TRL 5	TRL 6	TRL 7	TRL 8	TRL 9
Pre-Concept	Mtrl. Solution Analysis	Technology Development		Engineering & Manufacturing Development	Production & Deployment	Operations & Support

A B C

Concept Prototypes (e.g. SWORDS)

Development Prototypes (e.g. Predator)

Operational/Fieldable Prototypes (e.g. HOGJ)

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RF's Future Lines of Operation

Identify, develop and demonstrate multi-domain technologies and concepts to satisfy DoD, multi-Service and COCOM priorities

- **Concept Prototyping**
  - To introduce a new technical/operational option without necessarily driving a follow-on procurement
    - Will be competitively selected among the services
  - Measure: Demonstrates feasibility with a resulting analysis regarding operational value
- **Development Prototyping**
  - To anticipate future threats and to mitigate risk to major acquisition programs
  - Measure: Increased end-user capability resilience in a contested environment
- **Operational/Fieldable Prototyping**
  - For Rapid Response Priorities (Warfighter SIG, JUON & JEONs); mostly COCOM driven
  - For lower cost replacements; and to cost effectively extend system service life (Better Buying Power 2.0)
  - Measure: Satisfies threshold performance needs and affordability target inside 18 months

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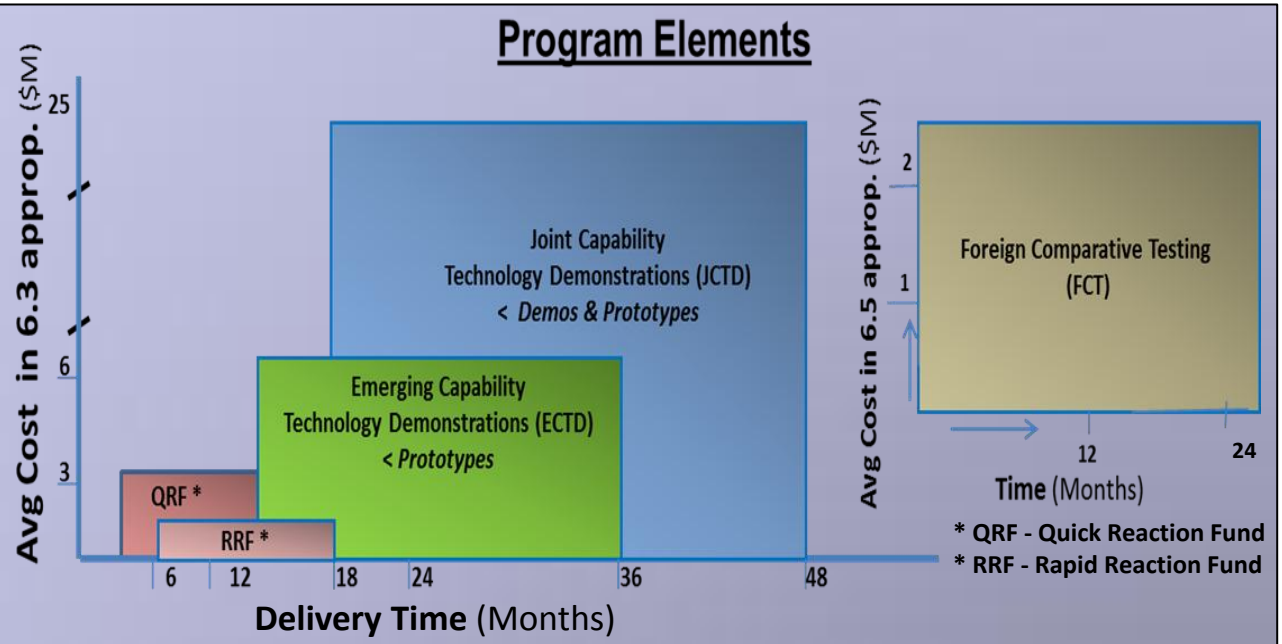
Working with Rapid Fielding

Concept Prototype
- *ECTD*

Development Prototype
- *JCTD*

Operational Prototype
- *QRSP*
- *FCT*



Rapid Reaction Technology Office (QRSP) Office Director Glenn Fogg	Rapid Reaction Technology Office (ECTD) Office Director Glenn Fogg	Joint Capability Technology Demonstration Office (JCTD) Office Director Robin Hicks	Comparative Technology Office (FCT) Office Director Col Rod Todaro

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